# UNITED STATES DISTRICT COURT EASTERN DISTRICT OF NEW YORK

EDGE SYSTEMS LLC,

Plaintiff,

VS.

Case No. 2:20-cv-06082

CARTESSA AESTHETICS, LLC,

Defendant.

#### STATEMENT OF FACTS

#### NON-INFRINGEMENT OF US PATENT NO. 9,550,052

- I. The device must have the option of drawing fluid from multiple containers simultaneously. The '052 Patent describes the invention in that way, the Edge product that falls under the claims operates that way, and the claims are written that way. The accused device does not meet the limitations related to this.
  - A. The '052 Patent describes a multi-modal product, one that allows a user to select between providing fluid from multiple containers or a single container.

[001]. The '052 Patent describes having multiple fluid containers attached to a manifold independently operated through switches to allow for the selection of fluid from a plurality of containers to allow for the option of providing treatment from multiple containers simultaneously. *See* Ex. A, U.S. Patent No. 9,550,052. As described by the specification, the device can draw from "multiple containers" "sequentially or simultaneously." *Id.* '052 Patent at 6:15-20. The ability to choose the mode is facilitated by the manifold in conjunction with valving. *Id.* at 5:16-17; 17:5-17; 9:6-7. In various embodiments, the mixture can happen in the manifold itself or in the handpiece because of a plurality of lumens (fluid delivery conduits) in

the handpiece. *Id.* at 6:9-18 (manifold delivering simultaneously); 8:37-42 (mixing at handpiece with multiple lumens).

B. The '052 Patent prosecution history reflects the creation of a multi-modal product, with initial claims reflecting simultaneous fluid usage and amendments adding individual selectivity to the independent claims.

[002]. The prosecution history reflects the same. See Ex. B, U.S. Patent No. 9,550,052 File History. The patent was filed with a placeholder claim and then narrowed through preliminary amendments including claims that required "a manifold, the manifold being in fluid communication at least one fluid container." Id. Preliminary Amendment at 2, May 1, 2015. A rejection was made over prior art from an inventor named Coleman. *Id.* Non-final rejection, Aug. 5, 2015. The examiner recognized that the invention involved multiple containers but pointed out that there was no language directed to selecting from a single container. Consequently, the examiner "suggested that focusing on the ability to select a treatment material of the multiple fluid containers would overcome the Coleman reference." *Id.* Application Initiated Summary, Aug. 7, 2015. In response, the applicant amended the claims to "further distinguish the claims from the cited references." *Id.* Resp. to Office Action at 6. The claim *kept* all the language directed to multiple containers but added language that allowed one to select among the containers. Namely, the independent claims were amended to require a "manifold being in fluid communication with a first fluid container and at least a second fluid container" "wherein the system is configured to permit a user to select the treatment material from the first fluid container . . ." Id. Resp. to Office Action, Feb. 5, 2016 at 3. The amendment was to allow for "the system's ability to permit for the selection of treatment materials from specific containers in fluid communication with a manifold." Id. at 5. As a result, the claim as issued retained all the language that allowed to draw from multiple containers simultaneously but also included language that allowed for selection from a single container.

- C. Edge products are multi-modal.
- [003]. The device that Edge claims is covered by the '052 Patent works in the above-described manner: it provides for the option to draw from a single container and from multiple containers. The Edge product has a switch assigned to each container. Ex. C, Exp. Rpt. M. Jensen, Apr. 7, 2022. As the switch is flipped, the manifold allows for fluid communication with each of those containers. This allows for fluid to flow from one or more containers simultaneously. *See* Exp. Rpt. M. Jensen, Apr. 7, 2022.
- [004]. Edge's witnesses agree that the Edge product is multi-modal. As Roger Ignon repeatedly testified, the Hydrafacial Tower is configured to allow for fluid to come from any number of containers simultaneously. Ex. D, Dep. R. Ignon at 110:15-111:14 ("Q Was it possible in the HydraFacial Tower to draw liquid out of two bottles simultaneously? A It could be done. . . . . There are individual switches for each -- each canister, and two switches could be in the 'on' position."). Testimony repeatedly confirmed the same. *See id.* at 187:25-189:4 ("[S]o long as the switch was on for two of [the containers,] it would draw out from both of them."); 189:11-15 (If "both of the containers were activated," they "would be in fluid communication for simultaneous treatment at the tip at the same time."); 190:5-19 ("[T]he manifold has a switch corresponding to each bottle as shown in lines 12 to 13 of column 17" and "you could throw switches and have multiple bottles and have treatment simultaneously.").
  - D. The multi-modal ability to draw from multiple containers at once is built into the independent claims: each requires a *manifold* in fluid communication with *multiple containers*.
    - 1. *Manifold* being in *fluid communication with multiple containers* are given their plain and ordinary meaning.
- [005]. Neither "manifold" nor the fluid communication terms ("fluid communication with at least a first container and a second container" (Claim 1) and "fluid communication with multiple

containers" (Claim 11)) were construed by the court. Ex. E, Doc. No. 48 (Markman order and order on motion to strike). As such they are given their plain and ordinary meaning.

2. A manifold in communication with a plurality of containers requires the ability to draw from more than one container.

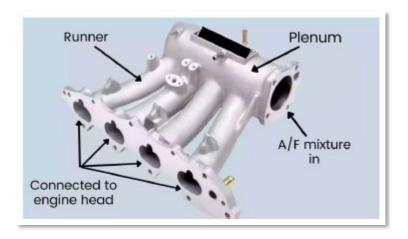
[006]. The claims of the '052 Patent are written such that they require the ability to draw from multiple containers at once: the key terms are that there is a "manifold" and that it is in "fluid communication" with a first "and" second container (claim 1) / "at least two" containers (claim 11). The claim language is below. Ex. A.

Claim 1	Claim 11
a console including a manifold, the manifold being in fluid communication with a first fluid container and	a manifold in fluid communication with at least two fluid containers, each of the at least two fluid
at least a second fluid container, the first fluid container and the at least the second fluid container being configured to contain a treatment material for a	containers being configured to contain a treatment material, wherein the treatment material comprises a liquid;
skin treatment procedure, wherein the treatment material comprises a liquid;	

[007]. The independent claims of the '052 patent require a manifold in fluid communication with two containers. Claim 1 claims "a manifold, the manifold being in fluid communication with a first fluid container and a second fluid container." Ex. A, '052 Patent Claim 1 at 21:14-16. Claim 11 requires "a manifold in fluid communication with at least two fluid containers." *Id.* at 11:20-21.

[008]. As Plaintiff acknowledges, a manifold is a "well-known structure in mechanical engineering." Ex. F, Exp. Rpt. R. Meyst for validity at ¶53. A manifold is "a structure that either combines a liquid fluid or gas from multiple sources into one common line, or does the opposite, has a common line to supply multiple outlets." Ex. H, Dep. M. Jensen at 215:20-216:10. A manifold is defined by its internal function: it connects a plurality of sources to a single outlet, or a single source to a plurality of outlets. Plaintiff provides the "common example" of an intake

and exhaust manifolds in an automobile. Ex. F, Exp. Rpt. R. Meyst for validity at ¶53. Plaintiff's expert, Mr. Meyst, shows an intake manifold as the prototypical example.



Ex. F, Exp. Rpt. R. Meyst for validity at ¶53.

[009]. Among the features of such a "well-known structure" as a manifold is the ability to combine fluid flows from multiple sources into one channel or divides fluid flow from one source into multiple channels. Ex. H, Dep. M. Jensen at 215:20-216:10. Mr. Meyst does not know of any manifold that does not work as described in the previous sentence: combining fluids into one or dividing fluid from one into many. Ex. I, Dep. R. Meyst 64:1-12. Mr. Meyst does not dispute that an intake manifold and exhaust manifold *continuously* route fluids through. *Id.* at 32:3-17. Mr. Meyst acknowledges that "[t]here's nothing in [a manifold] that blocks" fluid flow. *Id.* at 32:14-17. *See also id.* at 30:13-25; 62:4-24 (repeatedly acknowledging the same).

- E. Plaintiff provides no evidence of the existence of a manifold in fluid communication with a plurality of containers.
  - 1. There is no evidence of a manifold, only Mr. Meyst's admitted "assum[ption]" and "speculat[ion]" related to an unexamined object.

[0010]. The accused device provides fluids from the containers to the handpiece using solenoid valves made by Parker Manufacturing. Ex. C, Exp. Rpt. M. Jensen at ¶169-170; Ex. H at 210:22-211-7; Ex. I, Dep. R. Meyst at 107:12-110:9 (discussing Parker solenoid valve exhibit); Ex. J

(Parker solenoids array); Ex. K, Exp. Rpt. R. Meyst at 77 (showing black Parker solenoids in accused device). The solenoid valves are "standard five-watt solenoid valves . . . from Parker, a company that makes solenoid valves, and they are selectively open[ed] to allow fluid from one container to be drawn to treatment, but never more than one at a time." Ex. H, Dep. M. Jensen at 212:2-11. Plaintiff does not dispute that the accused device has solenoid valves that control fluid flow through computer processes that do not allow for the selection of multiple containers at one time. Ex. I, Dep. R. Meyst at 98:24-9:14. Mr. Meyst understands there to be a conduit from each container to the solenoid valve. *Id.* Ex. I, Dep. R. Meyst at 96:5-14.

[0011]. In short, the internal structure of the accused device is "not a manifold, it doesn't work like a manifold and it is not a manifold. It is a matrix or a line of solenoid valves." Ex. H, Dep. M. Jensen at 215:5-19.

[0012]. The result of this arrangement is that the accused device is not arranged such that it can provide fluid for treatment at the same time from multiple containers. See Ex. C at ¶¶163 et seq. The manual does not teach that fluid can be provided from multiple containers at one. Id. at ¶165-167. A visual inspection shows no hardware (e.g., switches) that would allow for providing fluid from multiple containers at once. Id. at ¶164. A test of the device shows that its software is programmed such that fluid cannot be provided from more than one container at a time because the solenoid valves run off routines that only allow for a single selection of fluid. Id. at ¶168-170. There was no mechanism to override the single container function. Id. at ¶171. [0013]. Plaintiff's entire attempt to provide evidence of the existence of a manifold is a picture of

an opaque white object in the accused device with no further investigation as to its status, design, or function. *See* Ex. K, Exp. Rpt. R. Meyst at 77. Mr. Meyst acknowledges he "assum[es]" it is a manifold. Ex., I, Dep. R. Meyst at 84:8-14 ("Well, the white object I'm assuming is the

manifold . . ."). Mr. Meyst admits he does no real investigation of the device. Ex., I, Dep. R. Meyst at 80:1-81:21; 84:15-24 (Mr. Meyst "do[esn't] know how it is structured on the interior so [he] would be just guessing" as to its internal flow patterns); Mr. Meyst "do[esn't] know and didn't concern [himself]" which what it is made of; Mr. Meyst doesn't know who took the picture in his report; Mr. Meyst "do[esn't] remember" if he even "physically touch[ed] the device"; Mr. Meyst did not do any destructive testing; Mr. Meyst did not detach it to inspect). He acknowledges the device is opaque, and he cannot see inside. Ex., I, Dep. R. Meyst at 111:22-112:2 (he "cannot see the fluid pathways"); 113:18-24 (he "did not take it apart to look inside to see what the pathway consisted of"). He can only "speculate" the fluid pathways inside. *Id.* 112:2-7. He did not perform any destructive testing to see its inside. *Id.* at 81:12-17. He did not detach it from the console. *Id.* at 81:18-21. Indeed, he is not certain if he ever even touched the object he assumed is a manifold. *Id.* at 81:8-11.

2. It is undisputed that the accused device has a matrix of solenoid valves, and solenoid valves are not a manifold.

[0014]. The accused device controls fluid flow with solenoid valves. Dr. Jensen provides a full explanation of the function of the general solenoid valves, their operation, and the existence of Parker solenoid valves that are found in the device. Ex. C, Exp. Rpt. M. Jensen at ¶169-170; Ex. H, Dep. M. Jensen vol. 1 at 210:22-212:11.

[0015]. The parties agree that a solenoid is not a manifold. A manifold is a "well-known structure in mechanical engineering" according to the Plaintiff. Ex. F, Exp. Rpt. R. Meyst for validity at ¶53. And that "well-known structure" is not a solenoid valve: solenoid valves and manifolds are not the same thing. Ex. I, Dep. R. Meyst at 82:15-21 ("Q To be clear, your answer is no, a solenoid valve and a manifold are not the same, correct? A That's correct."). One of the differences between solenoid valves and manifolds, as Plaintiff acknowledges, is the flow

pathways. While Mr. Meyst had limited knowledge of manifolds, he agrees that those he is familiar with "continuously" supply fluid flow through its multiple fluid pathways. Ex. I, Dep. R. Meyst at 30:2-32:17; *see also id.* at 83:6-24 (discussing differences in fluid flow between a solenoid valve and a manifold). However, his expertise is solenoids is also limited: He has not worked with solenoid valves in at least ten years. *Id.* at 110:10-12.

3. It is undisputed that the fluid containers are never in fluid communication at the same time.

[0016]. Dr. Jensen opines that the accused device does not meet the limitations requiring a manifold in fluid communication with a plurality of containers. *See* Ex. C, Exp. Rpt. M. Jensen at ¶152 *et seq*. Dr. Jensen describes the solenoid matrix that controls fluid flow and the software routines that prohibit simultaneously drawing from multiple containers. *Id.* at ¶166-168 (software routines), ¶169-171 (solenoid matrix controls the flow). Mr. Meyst agrees with Dr. Jensen that one cannot draw from multiple containers at once. The solenoid valves are arranged such that one cannot access multiple fluid containers at one time. Ex. I, Dep. R. Meyst at 98:24-99:14.

[0017]. When closed, the solenoid valves terminate fluid flow from container to any further aspect of the accused device. Edge's witness, and the inventor of the Shadduck patents, agrees: "valves can be used to terminate fluid communication from two different areas," and when one "turn[s] the valve" the two areas "are no longer in fluid communication with each other." Ex. Y Dep. J. Shadduck at 112:11-23. This termination of fluid communication "define[s] a valve." *Id.* [0018]. The solenoid valves are configured to run according to a software routine that activates solenoids. The solenoids are activated according to a software routine that limits opening a valve to a single container at a time.

4. Plaintiff provides no evidence that the *manifold* controls fluid flow.

[0019]. A consequence of the fact that the accuse device is not multi-modal is that the item identified as the manifold by Plaintiff does not control the fluid flow.

[0020]. Each of the independent claims of the patent in suit require the manifold to control the fluid flow. Ex. A, '052 Patent at 21:27-30 (claim 1 requires "wherein the manifold is configured to control a flow of treatment material . . ."); *id.* at 22:36-40 ("wherein the manifold is configured to control a flow of treatment material . . .").

[0021]. For the reasons described above, it is the solenoid valves that control the fluid flow in the accused device. The accused device controls fluid flow with solenoid valves. Dr. Jensen provides a full explanation of the function of the general solenoid valves, their operation, and the existence of Parker solenoid valves that are found in the device. Ex. C, Exp. Rpt. M. Jensen at ¶¶169-170; Ex. H, Dep. M. Jensen vol. 1 at 210:22-212:11.

[0022]. The parties agree that a solenoid is not a manifold. A manifold is a "well-known structure in mechanical engineering" according to the Plaintiff. Ex. F, Exp. Rpt. R. Meyst for validity at ¶53. And that "well-known structure" is not a solenoid valve: solenoid valves and manifolds are not the same thing. Ex. I, Dep. R. Meyst at 82:15-21 ("Q To be clear, your answer is no, a solenoid valve and a manifold are not the same, correct? A That's correct."). One of the differences between solenoid valves and manifolds, as Plaintiff acknowledges, is the flow pathways. While Mr. Meyst had limited knowledge of manifolds, he agrees that those he is familiar with "continuously" supply fluid flow through its multiple fluid pathways. Ex. G, Dep. R. Meyst at 30:2-32:17; *see also id.* at 83:6-24 (discussing differences in fluid flow between a solenoid valve and a manifold). However, his expertise is solenoids is also limited: He has not worked with solenoid valves in at least ten years. *Id.* at 110:10-12.

[0023]. For the reasons described above Plaintiff's superficial attempt to point to an opaque white object in the accused device does not meet the requirement to identify evidence in support of this limitation. See Ex. K, Exp. Rpt. R. Meyst at 77. Mr. Meyst acknowledges he "assum[es]" it is a manifold. Ex. I, Dep. R. Meyst at 84:8-14 ("Well, the white object I'm assuming is the manifold . . . "). Mr. Meyst admits he does no real investigation of the device. *Id.* at 80:1-81:21; 84:15-24 (Mr. Meyst "do[esn't] know how it is structured on the interior so [he] would be just guessing" as to its internal flow patterns); Mr. Meyst "do[esn't] know and didn't concern [himself]" which what it is made of; Mr. Meyst doesn't know who took the picture in his report; Mr. Meyst "do[esn't] remember" if he even "physically touch[ed] the device"; Mr. Meyst did not do any destructive testing; Mr. Meyst did not detach it to inspect). He acknowledges the device is opaque, and he cannot see inside. *Id.* at 111:22-112:2 (he "cannot see the fluid pathways"); 113:18-24 (he "did not take it apart to look inside to see what the pathway consisted of"). He can only "speculate" the fluid pathways inside. *Id.* 112:2-7. He did not perform any destructive testing to see its inside. *Id.* at 81:12-17. He did not detach it from the console. *Id.* at 81:18-21. Indeed, he is not certain if he ever even touched the object he assumed is a manifold. *Id.* at 81:8-11.

II. The '052 Patent claims are written such that a reseller such as Cartessa may be liable for indirect infringement, but the direct infringer is only end user of the device.
[0024]. Cartessa is a reseller that sells the SkinWave system. Cartessa is not an operator of the system, does not own any spas that utilize the system, does not employ doctors that utilize the system, or otherwise complete the claimed systems. See, e.g., Ex. C, Exp. Rpt. M. Jensen at ¶36.
[0025]. Claim 1 of the '052 Patent requires a "system" that, when activated "draw[s] treatment material" from fluid containers. Claim 11 of the '052 similarly requires a system with control of "a flow of treatment material."

[0026]. Similarly, the claim 1 requires that "when the vacuum source is activated," it "remov[es] waste from the skin surface." Ex. A, '052 Patent at 21:42-47. Claim 11 requires the system "to remove waste . . . during a procedure." *Id.* at 22:32-34.

[0027]. These limitations describe a system not just having the hard plastic parts of the SkinWave product, but one that includes liquid placed into use.

[0028]. Dr. Duboys describes at length that Cartessa "instructs" users to take the SkinWave system and structure the system in a manner that allegedly infringes. See Ex. L, Exp. Rpt. E. Duboys at ¶¶103-106; id. at ¶¶113, 118.

[0029]. Likewise, Dr. Duboys opines that Cartessa "teaches users" to choose a treatment liquid to add to the SkinWave device to complete the allegedly infringing system. *Id.* at ¶121.

[0030]. Mr. Meyst acknowledges that the claimed system of the '052 Patent is not complete until fluid is in the containers. Ex. I, Dep. R. Meyst at 269:18-270:15. Even upon the guidance of Edge's counsel on redirect in order to repair those admissions, Mr. Meyst acknowledges that "when the vacuum source is activated is when *it has to have liquid in it.*" *Id.* at 270:2-12 (emphasis added).

[0031]. Mr. Meyst acknowledges the Cartessa is not in possession of the completed system because it does not have fluid in it. Ex. I, Dep. R. Meyst at 265:16-266:8 ("I don't think they add liquid to the device before it is shipped"); *id.* at 267:5-12 ("Q But the liquid is not in the container in Cartessa's possession, correct? A I don't believe it is."). When the product is shipped from Cartessa, the system is not complete at least because it does not have the liquid in it. *Id.* at 265-266.

[0032]. The presence of fluid is a limitation. The claimed system, as acknowledged by Mr. Meyst, is not complete until the fluid is in the container. Fluid is a "necessary part" of the system.

Q And that system is not complete until the fluid is in the container, correct?

MR. MURRAY: Objection; form.

THE WITNESS: Without the fluid it will – it can't deliver fluid so *it is a necessary part*.

Ex. I, Dep. R. Meyst at 269:13-17.

[0033]. Instructing others or teaching others to complete a patented invention is indirect infringement, induced infringement or contributory infringement, and is not direct infringement. [0034]. There is no pleading of induced infringement by Cartessa in this case; there is no pleading of contributory infringement by Cartessa in this case; and there is no pleading of any actor being the direct infringer even if Cartessa could be liable as an indirect infringer in this case. *See* Ex. M, Dkt. 1.

## SUMMARY JUDGMENT OF NON-INFRINGEMENT OF THE SHADDUCK PATENTS

[0035]. Edge asserts three patents by John Shadduck, referred to as the Shadduck patents. They are all continuations of another and share a common specification. They are U.S. Patent Nos. 6,641,591, 8,066,716, 8,337,513 (the "'591 Patent", "'716 Patent" and the "'513 Patent", respectively).

[0036]. Each of the asserted claims requires an internal structure that is "sharp" and/or "abrades." A "sharp" feature is required in '591 patent claim 1-4, 6-8, '716 patent claim 11-12, 14-16, and '513 patent claim 1-4, 6-12, 14.

[0037]. An "abrading" feature (or other variant of that word) is required in '591 patent claim 1-4, 6-8, '716 patent claim 1, 3, 4, 6, 8-12, 14-16, and '513 patent claim 1-4, 6-9. The internal structures are those structures within the perimeter of the tip.

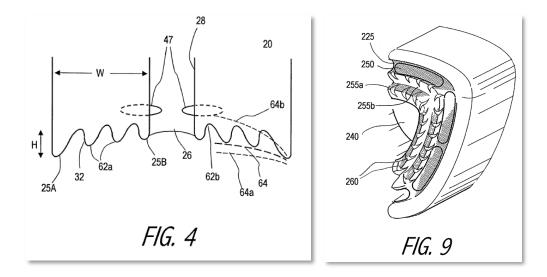
[0038]. The Court gave each of those terms their plain and ordinary meaning. They are "straightforward" terms with "common meanings." Ex. E, Dkt. 48 at 5. The Court noted

"straightforward" terms with "common meanings." Ex. E, Dkt. 48 at 5. The Court noted "[a]brade' is commonly understood in many contexts, including relation to skin. As to 'sharp,' anyone who has shaved with a razor, eaten with a knife, or trimmed a fingernail should readily understand this term." *Id.* at 6. "Given the relative simplicity of the terms" the Court concluded their plain and ordinary meaning should control. As for a sharp edge "configured to abrade," the court construed to mean "sharp edges that are positioned such that the sharp edge abrades tissue." The Court viewed this construction as making clear that something was "configured" to abrade based on its physical positioning as opposed to something inherent in its design. *Id.* 

III. The devices at issue are not sharp and do not abrade skin.

A. The patent-in-suit provide helpful examples of sharpness.

[0039]. The Shadduck patents provide helpful illustrations to understand what is sharp and what is not, and it comports with the Court's order that the terms have their plain and ordinary meaning. A Type A system is shown on the left, with distinct rounded features (item 32) that contact the skin. A Type B system is shown on the right, with sharp points directed at the skin.



'513 Pat. at Fig. 4 (Type A) (showing rounded features not configured to abrade) (left); Fig. 9 (Type B) (showing sharp features configured to abrade) (right).

[0040]. Dr. Duboys agrees that Type A systems are not sharp and Type B systems are.

Q [O]ne of the differences that they're talking about between Type B systems and Type A systems is that **Type B systems have**, one, <u>ridges</u> that are substantially sharp enough to abrade; whereas, Type A systems do not, correct?

### A. Correct.

Ex. N, Dep. E. Duboys at 322:9-15.

Q. And then another difference as described in the bottom of Column 7 of the '513 patent is that **Type B systems have <u>notches</u> that are substantially sharp enough to abrade whereas type As do not, correct?** 

#### A. Yes.

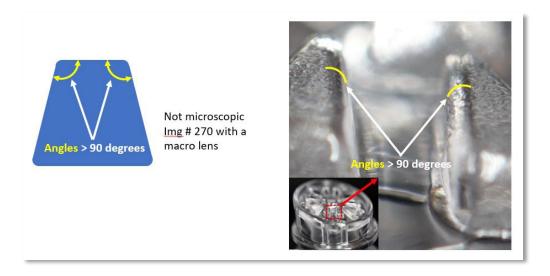
Id. at 322:17-22.

B. The internal structures of the accused devices are rounded.

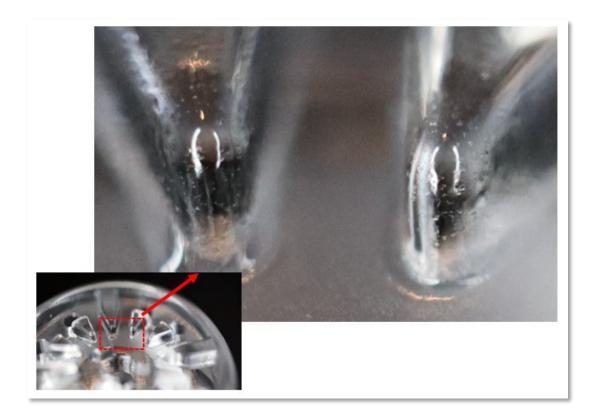
[0041]. The internal structures are rounded in the accused device. Dr. Jensen used an ordinary zoom lens to capture tips.



Ex. C, Exp. Rpt. M. Jensen at 34.



*Id.* at ¶107.



*Id.* at ¶108.

[0042]. Even the photographs provided by the Plaintiff show substantial rounding on all edges.







Ex. K, Exp. Rpt. R. Meyst at 12.

[0043]. The features each have distinct rounding at all edges.

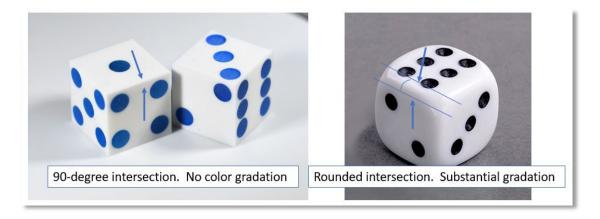
[0044]. An object is objectively sharp when it displays sudden intersections between faces. Dr. Jensen provides the example of rounded and sharp dice.





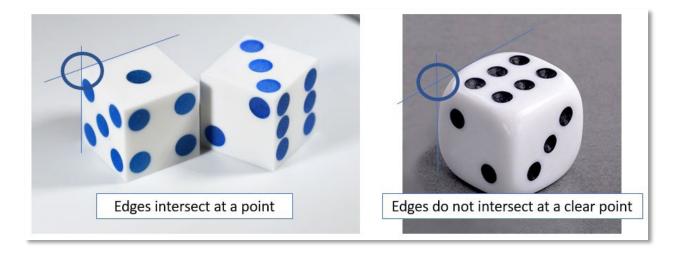
Ex. C, Exp. Rpt. M. Jensen at ¶103.

He discusses at length the various aspects of the dice that one could use to distinguish between a die with sharp edges and ones with rounded edges. He discusses how light reflects off each differently such that there is a pronounced color change between faces at sharp intersections and gradation when there is no sharp intersection.



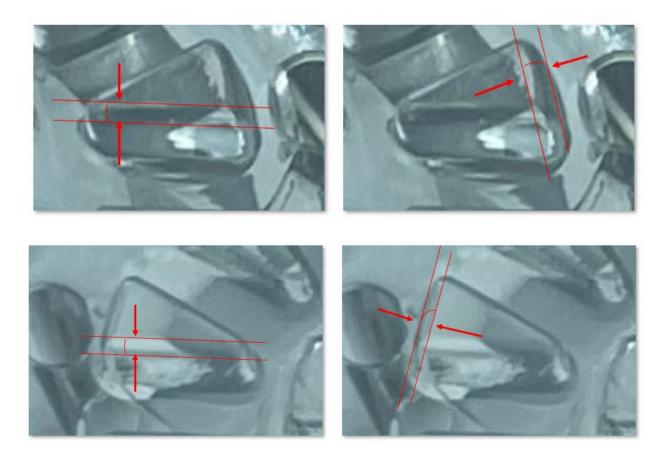
*Id.* at ¶103.

He discusses at length the ability to draw intersecting lines tangent to different faces, and how rounded edges have intersection point distant from the face, while sharp edges have intersections near to the face.



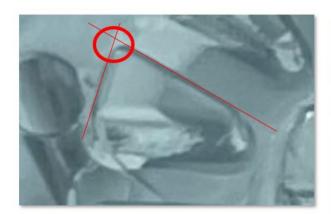
*Id.* at ¶104.

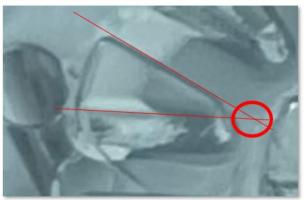
[0045]. Applying the straightforward understanding of sharp above to the device shows obviously rounded edges that do not meet any plain and ordinary meaning of sharpness. There is substantial color gradation at the intersection of faces.



*Id.* at ¶105.

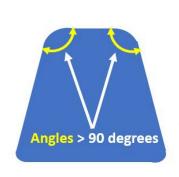
[0046]. The intersection of lines tangent to the faces are far distant from corners.



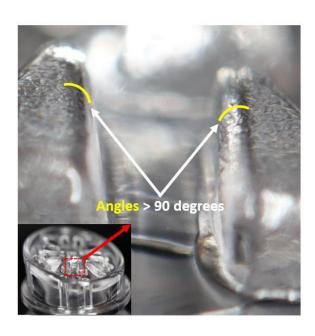


*Id.* at ¶105.

Arcs are the dominant feature at the intersection of faces of the structures. Indeed, the cross section of the structures themselves are greater than 90° (i.e., trapezoid-like), the opposite construction of at typically sharp object like a knife or a razor that would have a small acute angle, the type of sharp objects identified by the Court in its construction.



Not microscopic Img # 270 with a macro lens



*Id.* at ¶107.

[0047]. Through these obvious and easy to understand tests, the internal structures are identified as plainly rounded and not sharp.

C. Plaintiff's expert attempts to avoid the conclusion that the structures are not sharp by reading the sharp limitation out of the claim.

[0048]. Plaintiff attempted to read the "sharp" limitation out of the claim at claim construction. Edge proposed a definition of "sharp" that meant "sufficiently sharp to abrade . . ." Ex. E, Dkt. 35, Ex. A at 6. The Court rejected this limitation. *See* Ex. E. It is a separate limitation, and reading it as Edge proposed would render the term entirely superfluous. For instance, under the Plaintiff's proposed construction, limitations such as "abrading structure with substantially sharp edges for abrading tissue" would be functionally the same as if the word sharp were missing entirely – it would mean an "abrading structure [shaped such that it could abrade] for abrading tissue". The Court rejected this improper broadening.

[0049]. The Court was clear in rejecting the Plaintiff's attempt to make sharp meaningless, specifically identifying quintessentially sharp objects as meeting the limitation: a razor, a knife, fingernails clippers. *Id*.

[0050]. Despite the claim language that makes the two separate limitations, the Court's instruction and the examples provided, Dr. Duboys nonetheless defines sharp as capable of abrading. *See* Ex. L, Exp. Rpt. E. Duboys at ¶61 ("I concluded that the fifteen ridge structures would be sharp enough to abrade the skin . . .").

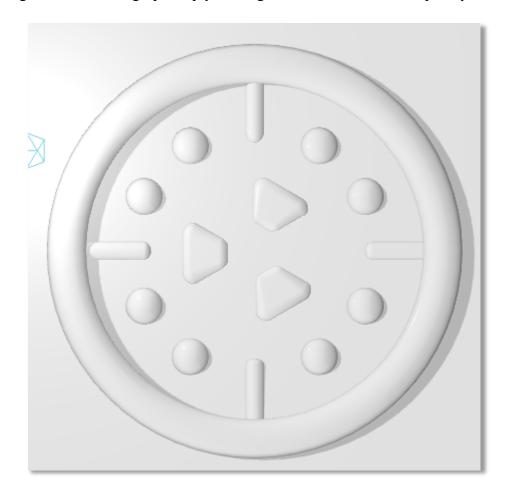
[0051]. Dr. Duboys repeats the effort in his reply brief. An entire section is devoted to this argument, entitled "The Claim Term 'Sharp' Cannot be Completely Divorced from the 'Abrade' Terms." Ex. P, Exp. Rpt. E. Duboys at 16. Dr. Duboys repeated the same reliance on the rejected construction in his deposition.

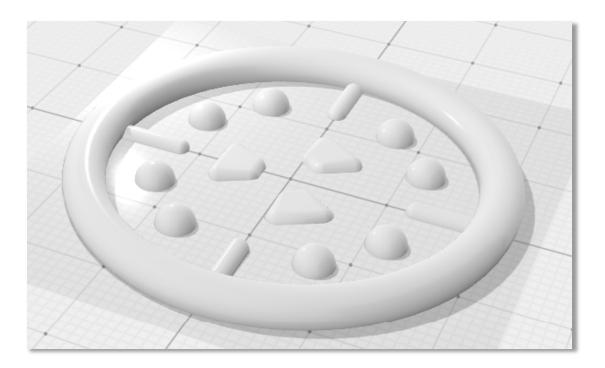
- Q. What's the difference between saying sharp and substantially sharp?
- A. I think substantially sharp is -- because we're speaking about the definition of sharp here again, and it's a continuum. So I wouldn't say sharp as in knife, I would use the word <u>"substantially sharp" as used here, meaning that it's a sharp enough to abrade.</u>

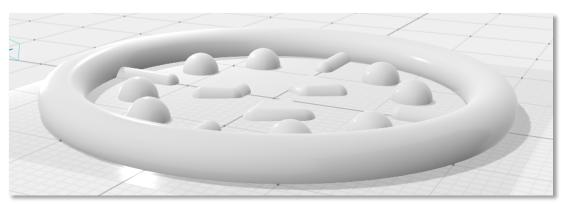
Ex. N, Dep. E. Duboys at 319:3-12.

D. The meaninglessness of Dr. Duboys' understanding of sharp is demonstrated through his testimony that dome shapes are sharp.

[0052]. Dr. Jensen provided the following example of a non-infringing alternatives: because the SkinWave device is not dependent on abrading / or sharpness, an obvious non-infringing alternative is to remove any feature that Plaintiff claims *incidentally* is sharp or abrades. Dr. Jensen designed the following tip, simply making each of the features completely round.







Ex. C, Exp. Rpt. M. Jensen at 121-122.

Q. This represents the end of a -- a tip for a device. Did you understand that when you read this report?

# A. Yes.

- Q. And you would agree with Dr. Jensen that this is not infringing if one was designed in this way because it is not sharp?
- A. Which -- which -- we have two images here.
- Q. Yeah, it's the same image from different angles just to make it easy to comprehend. But you would agree with him that that is noninfringing; is that right?

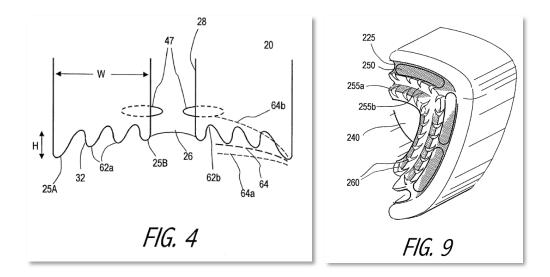
- A. No. I think this is what infringed as well.
- Q. Okay. And why does it infringe.
- A. What -- I'm looking at page 119. Is that where the images are? Is that correct?
- Q. I see pages 121 and 122.
- A. Okay. Let me look at them. Okay. I'm looking at the images here.
- Q. You agree with him that those are noninfringing?
- A. I would even say -- I would go so far to say that these are infringing.
- Q. And -- and is it because those domes are in fact sharp?
- A. Relatively speaking, yes.

Ex. N, Dep. E. Duboys at 244:2-245:4.

[0053]. Dr. Duboys' attempt to collapse the meaning of sharp into the functional meaning of abrasion renders his opinion as providing no evidence. He does not opine as to sharp, only as to abrasion. To the extent any of the remainder of his report demonstrates any intent to show sharpness, it is entirely *ipsi dixit*: he looked at it, it looked sharp. Ex. L, Exp. Rpt. of E. Duboys at ¶63. He provides no detailed analysis, no ability to reproduce his work to reach the same result, no ability for a baseline comparison – none of the hallmarks of a rigorous analysis. By rejecting the plain and ordinary meaning of sharp, Dr. Duboys provides no evidence of sharpness.

E. The patent provides helpful understanding for an abrading structure or one configured to abrade.

[0054]. As with sharpness, the patent provides useful baseline for comparison between something that "abrades" / is "configured to abrade" and something that is not.



'513 Pat. at Fig. 4 (Type A) (showing rounded features not configured to abrade) (left); Fig. 9 (Type B) (showing sharp features configured to abrade) (right).

[0055]. Again, Dr. Duboys agrees this is the difference between Type A and Type B systems is that Type B have abrading structures and Type A do not.

Q [O]ne of the differences that they're talking about between Type B systems and Type A systems is that **Type B systems have, one, ridges that are substantially sharp enough to abrade; whereas, Type A systems do not, correct?** 

# A. Correct.

Ex. N, Dep. E. Duboys at 322:5-15.

Q. And then another difference as described in the bottom of Column 7 of the '513 patent is that Type B systems have notches that are substantially sharp enough to abrade whereas type As do not, correct?

#### A. Yes.

Id. at 322:16-25.

[0056]. In cross section, the peaks of the abrading structures of the Type B types are "like the roof on a building" such that they form "substantially sharp apexes" that "serve as an agent of abrasion." Ex. I, Dep. R. Meyst at 129:10-13; 134:1-20. They are the agent of abrasion because "the peak of the roof... would contact the skin first." *Id.* As "that peak [is] translated over the

skin is what abrades the skin." *Id.* at 134:21-135:5. The notched formed between the roofs likewise abrade. *Id.* 

[0057]. The accused device shows the opposite configuration. Instead of having a configuration such that a peak is oriented to be translated across the skin, a flat surface parallel with the skin is translated across. Ex. C, Exp. Rpt. M. Jensen at ¶¶119-122. Because of this, it is not "configured to abrade."

[0058]. The courts construction stressed that it is the "physical positioning" of the structures that determines whether they are structures that abrade.

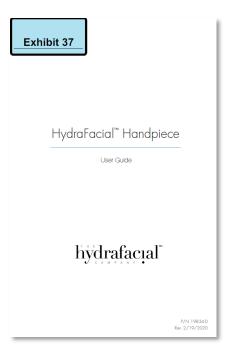
[0059]. None of the Plaintiff's tests show that abrasion occurred. Instead, Dr. Duboys only relies on reddening of skin, but admits that reddening is neither necessary nor sufficient to show abrasion. Ex. AC, Dep. E. Duboys at 76:22-77:23 (different causes of redness other than abrasion), 284:5-284:24 (claiming other factors than redness to identify abrasion). Moreover, even if abrasion of skin occurred, none of Plaintiff's test isolate the internal structures to determine if *they specifically* abrade as is required by the claims. Ex. C, Exp. Rpt. M. Jensen at \$\\$\\$123 et seq.\$ Because of this, the structures are neither configured to abrade, nor do has Plaintiff provided any evidence that actual abrasion occurs.

#### **FAILURE TO MARK**

[0060]. To obtain damages prior to actual notice of the patents-in-suit, the marking statute requires physical marking of the patented object, with the mark "fix[ed] thereon," and only where "from the character of the article, this cannot be done" may marking be on packaging. *See* 35 U.S.C. § 287(a).

[0061]. Edge failed to present a corporate witness that was prepared to testify as to Edge's products that practice the patents-in-suit. Cartessa's Deposition Notice pursuant to Fed. R. Civ.

- P. 30(b)(6) Topic 4 sought such a witness. Edge stated it would designate such a person. Ex. Q, Pl. Obj. and Resp. to Am. Notice of 30(b)(6) deposition at 4-5 (Topic 4). Carrol Lamarque was purportedly offered for that basis. Ex. R., Dep. C. Lamarque at 11:23-12:2; 13:19-22. However, he was unprepared and could not identify products 49:23-53:9 (agreeing he cannot associate a patent with a product "because [he is] not prepared to testify as to which patents [Edge] products practice.").
- IV. Failure to Mark Individually Sold Handpiece with any of the Shadduck Patents [0062]. The handpiece is individually sold by Edge. Ex. R., Dep. C. Lamarque at 26:10-27:14. It has been sold at least since 2017. *Id.* The handpiece has its own SKU number, as is Edge's practice with each of the different products it sells. *Id.* at 115:23-116:3.
- [0063]. The handpiece ships within its own box. Ex. R., Dep. C. Lamarque at 159:7-159:13; Ex. N, Dep. E. Duboys at 386:11-387:6
- [0064]. The handpiece falls within the scope of each of the Shadduck patents. Ex. C, Exp. Rpt. M. Jensen at ¶405-406; *see also*, *e.g.*, Ex. N, Dep. E. Duboys at 390:25-394:8 (agreeing that all limitations of the '513 patent should be found in the handpiece).
- [0065]. The manual indicates that the handpiece is patented. Ex. R., Dep. C. Lamarque at 120:3-18; Ex. 37. The handpiece is not physically marked with any patent numbers; instead the manual indicates that the relevant patents for the handpiece can be found at hydrafacialco.com/patents. *Id.* The handpiece comes with a manual that is copyrighted by the plaintiff. *Id.*



# Terms and Conditions of Use

HydraFacial<sup>™</sup>, HydraFacial MD<sup>™</sup>, Vortex-Fusion<sup>™</sup>, HydroPeel<sup>™</sup>, Britenol<sup>™</sup>, HydraFacial MD CTGF<sup>™</sup>, UV Smart<sup>™</sup>, and My Life, My Time, My Skin<sup>™</sup> are trademarks of Edge Systems LLC that are registered in the United States. This product and its use are covered by one or more U.S. and International patents. Patent info: hydrafacialco.com/patents. These intellectual property rights (IPR's) remain the exclusive property of Edge Systems LLC or its licensors.

Ex. S, Exp. Rpt. M. Jensen at ¶407; Ex. R., Dep. C. Lamarque at 120:3-18.

[0066]. Plaintiff has identified seventeen pieces of exemplary evidence to support substantial marking. *See* Ex. T, Plaintiff's response to interrogatories at 17-18. None of the evidence cited shows any attempt to physically mark the handpiece. *See* Ex. S, Exp. Rpt. M. Jensen at ¶425 [0067]. The handpiece is of a character that could be physically marked. The handpiece has physical markings on it such as operation symbols and logos, indicating that it is possible to physically place numbers and symbols on it. Edge's employees do not have any knowledge on why patent numbers could not be placed on the handpiece. Ex. R., Dep. C. Lamarque at 155:13-156:14.

[0068]. Edge has a facility in Long Beach California where labeling is done prior to shipping. 159:21-160:7. The workers there are Edge employees. *Id.* They do not affix patent numbers to the handpieces. 156:1-157:4.

[0069]. The handpiece was not physically marked. Instead, Plaintiff attempted to mark by including of a website in a manual. Ex. S, Exp. Rpt. M. Jensen at ¶407.

[0070]. Even if the manual was appropriate under the statute for marking, the manual fails to indicate the product is properly marked. There is no labeling on the hydrafacialco.com/patents that indicates which patents cover it. There is no indication on the hydrafacialco.com/patents website which patents cover the handpiece. Edge's witness could not identify anything on the website that associated the handset with a particular patent number. Ex. R., Dep. C. Lamarque at 154:12-155:5.

[0071]. Because the handpiece has been sold without any marking and because the handpiece falls with at least one claim of each of the Shadduck patents, Edge has not satisfied the marking requirement for the Shadduck patents.

V. Failure to Mark All Patents in Suit on the Hydrafacial Elite

[0072]. Plaintiff failed to properly virtually mark its products. Edge maintained two websites to do one: one that its employees knew of *hydrafacial.com/patent*, Ex. U, Dep. R. Holcomb at 101:13-102:3, and one that the manuals of its products pointed to *hydrafacialco.com/patents*. *See, e.g.*, Ex. S, Exp. Rpt. M. Jensen at ¶422.

[0073]. There have been no patent numbers added to the Plaintiff's patenting websites between 2016 and February 17, 2022. *Id.* at ¶427.

[0074]. There have been no products added to the Plaintiff's patenting websites between 2016 and February 17, 2022. *Id.* at ¶427.

[0075]. The only substantive change to the Plaintiff's patenting websites between 2016 and February 17, 2022, has been changing the name of a product from Delphia Microderabrasion in 2016 to Hydrafacial Microdermabrasion presently. *Id.* at ¶427.

A. Through at least May 27, 2022, the Hydrafacial Elite was not marked. [0076]. The Hydrafacial Elite practices all the asserted patents.

[0077]. The Hydrafacial Elite and the Hydrafacial Tower are different products. The Hydrafacial Elite has the same functionality as the Hydrafacial Tower, but there is newer software in the Elite. *Id.*; *see also* Ex. V, Exp. Rpt. E. Duboys, Apr. 7, 2022 at n.1. Otherwise, the Elite and the Tower are not functionally different. The two are "structurally identical." Ex. V, Exp. Rpt. E. Duboys, Apr. 7, 2022 at n.2. The Elite falls within the scope of the asserted patents. *Id.* at ¶102-104.

[0078]. The Hydrafacial Elite and the Hydrafacial Tower both fall within the scope of at least one claim of each of the patents-in-suit. Ex. V, Exp. Rpt. E. Duboys at ¶¶102 et seq. Plaintiff attempts to associate each of the patents in suit with the Hydrafacial Tower. See Ex. R., Lamarque Dep. Ex. 43 (showing Tower with the '716 Patent, '513 Patent, '591 Patent, and '052 Patent). Because the two products are "structurally identical" and not functionally different, the same patents cover the Hydrafacial Elite.

[0079]. The two products are sold at different prices and are labeled under different SKU numbers (stock keeping unit number).

[0080]. As of January 6, 2022, the Hydrafacial Tower was no longer sold in U.S. markets. Ex. R., Dep. C. Lamarque 150:5-8. The Elite is currently sold in the U.S. market. *Id.* at 151:12-15. The Elite has been sold in the U.S. market at least since 2017. *Id*.

[0081]. The Hydrafacial Elite manual indicates that the relevant patents for the Hydrafacial Elite can be found at hydrafacialco.com/patents.

[0082]. Even if the manual was appropriate under the statute for marking, the manual fails to indicate the product is properly marked. There is no labeling on the hydrafacialco.com/patents that indicates which patents cover the Hydrafacial Elite.

[0083]. Even though the Elite has been for sale in the United States at least since 2017, there is no indication on the patenting website hydrafacial.com/patents what patents cover it. Even though the Elite has been for sale in the United States at least since 2017, there is no indication on the alternative patenting website hydrafacialco.com/patents what patents cover it. Ex. R, Dep. C. Lamarque at 155:6-10.

[0084]. Plaintiff attempts to avoid the consequences of failure to mark the Hydrafacial Elite by claiming that it visually looks like the Hydrafacial Tower, and the Hydrafacial Tower appears on the hydrafacial.com/patents website. Ex. V, Exp. Rpt. E. Duboys at ¶101. According to Dr. Duboys, seeing a sticker on an Elite would lead one on a research project that would ultimately have one conclude it was covered by the asserted patents.

If someone inspects a HydraFacial Elite machine to determine whether it is patented, that person will see the patent notice sticker on the machine and visit the hydrafacial.com/patents website. Once there, that person will see a photograph of the *exact tower-style machine* before them, with the patent numbers listed alongside the image. In my opinion, and based on my experience as a user and owner of HydraFacial machines, the juxtaposition of a photograph of the marked device and the patent numbers is sufficient to "associate[] the patented article with the number of the patent." That the image is labeled "HydraFacial Tower" – a label that could well be descriptive of the device and a means to distinguish the tabletop version – does not undermine the effect created by that juxtaposition.

Ex. V, Exp. Rpt. E. Duboys at ¶101.

[0085]. The Hydrafacial Elite machine is not marked with the

hydrafacial.com/patents website. Instead it is associated with the

hydrafacial<u>co</u>.com/patents website (including a "co" after the "hydrafacial"). Ex. S, Exp. Rpt. M. Jensen at 170; Ex. W, EDGE-CARTESSA\_1059914; Ex. R., Dep. C. Lamarque at 176:3-18.

[0086]. The Hydrafacial Elite does not appear on the hydrafacialco.com/patents webpage. Edge's personnel admits he could not find "anything on [the webpage] that associates the HydraFacial Elite with a particular patent." Ex. R., Dep. C. Lamarque at 155:6-10.

[0087]. Plaintiff admits that limitations captured in the patents in suit are not visible in images of the products. Ex. N, Dep. E. Duboys at 388:6-389:2 (acknowledging that an image of the Tower on the patenting website does not show, e.g., a manifold, a vacuum, software functionality).

[0088]. Dr. Duboys' provides *ipse dixit* that the legal requirements of the marking statute are met here because the website includes the "label[] "HydraFacial Tower" – a label that could well be descriptive of the device and a means to distinguish the tabletop version," which would be interpreted by a viewer to the Hydrafacial Elite.

[0089]. The "Tower" in the Hydrafacial Tower label on hydrafacial.com/patents and hydrafacialco.com/patents includes a TM indicating it is a trademarked product.

U.S. Pat. 9,474,886	U.S. Pat. 6,641,591	
U.S. Pat. 7,789,886	U.S. Pat. 8,337,513	
lco.com/patents/		
0:46 AM		
U.S. Pat. 8,066,716	U.S. Pat. 7,678,120	
	U.S. Pat. 6,299,620	
U.S. Pat. 8,048,089		
U.S. Pat. 8,048,089 U.S. Pat. 6,629,983	U.S. Pat. 9,550,052	

Ex. R, Dep. C. Lamarque at Ex. 41.

[0090]. The Hydrafacial Elite is likewise a trademarked product name.

[0091]. Marking a device with its trademarked name is not a descriptor of a different device with a different trademarked name. Hypothesizing that the Tower trademarked name "could well be descriptive" of a different product does not

satisfy the statutory requirement that the patent marking be "fixed thereon" and "associate[d] with" the "patented article." See 35 U.S.C. §287(a).

[0092]. The websites associating patent numbers with a Hydrafacial Tower does not associate them with the Hydrafacial Elite.

[0093]. Because the Hydrafacial Elite practices all of the asserted patents and because the Hydrafacial Elite is not marked, Plaintiff did not satisfy the marking statute with respect to all of the patents-in-suit.

B. After Defendant pointed out the failure to mark, Plaintiff changed its marking during this litigation without notice to Defendant or the Court. For a period this made the website nonfunctional.

[0094]. As of January 13, 2022, the website hydrafacialco.com/patents appeared as shown in Exhibits 39 through 44 of the deposition of Carrol Lamarque. *See* Ex. R., Dep. C. Lamarque at 127:21-132:20. This differed from the contents of hydrafacial.com/patents (the first having "co" after "hydrafacial", the second without).

[0095]. As of May 27, 2022, the website hydrafacialco.com/patents returned an "Error 404" message as shown in the deposition of Elliot Duboys. Ex. N, Dep. E. Duboys at 370:8-373:16. During this period, the website did not provide any notice of any patent marking on any product because it was nonfunctional.

[0096]. As of June 20, 2022, the website hydrafacialco.com/patents redirected to hydrafacial.com/patents.

VI. Failure to mark the '052 Patent on the Allegro

[0097]. The Allegro is a tabletop version of the Elite and the Tower.

[0098]. The Allegro falls within the scope of each of the patents-in-suit. Ex. S, Exp. Rpt. M. Jensen at ¶¶415 et seq.

[0099]. The Allegro has the same functionality as the Tower. Ex. N, Dep. E. Duboys at 385:3-16. As with the Tower and Elite, the Allegro has multiple containers, a vacuum that draws waste, a small screen, waste bottle, switches to draw media from the containers. It uses the same tips as the Tower and Elite, has conduits that lead from containers to the handpiece, and uses the same vacuum vortex at the Tower. Ex. R., Dep. C. Lamarque at 132:21-137:25. In summary, the differences are the Allegro is "shorter," sits on "a tabletop instead of on casters," it has "a smaller monitor [that] does not provide protocols for treatment" and it does not have standard lights and lymphatic drainage. Ex. R., Dep. C. Lamarque at 138:24-139:9.

[00100]. None of the identified differences between the Allegro and the Tower and Elite are captured in the limitations of the independent claims of the '052 Patent. Therefore, if the Tower and Elite fall within at least one claim of the '052 Patent, the Allegro falls within at least one claim of the '052 Patent.

[00101]. Edge takes the position that the Hydrafacial Devices fall with the scope of at least one claim of each of the asserted patents. Ex. V, Exp. Rpt. E. Duboys at ¶¶102 et seq.; id. at 4 n.2 ("Hydrafacial Devices" are at least the Hydrafacial Elite, Tower, and MD).

[00102]. Edge makes no attempt to mark the Allegro with the '052 Patent.

U.S. Pat. 6,641,591	U.S. Pat. 7,678,120
U.S. Pat. 7,789,886	U.S. Pa.t 8,337,513
U.S. Pat. 8,066,716	U.S. Pat. 6,299,620
U.S. Pat. 8,048,089	U.S. Pat. 6,629,983

Ex. R, Dep. C. Lamarque at Ex. 39; Ex. S, Exp. Rpt. M. Jensen at ¶415 et seq.

# VII. No Prenotice Damages

[00103]. The only legal avenue Plaintiff has for pre-notice damages is through marking.

[00104]. Plaintiff provides no evidence of any other legal avenue for pre-notice damages.

[00105]. Plaintiff is not entitled to pre-notice damages for any of the patents-in-suit because of the failure to mark.

[00106]. The Shadduck Patents expired August 2020. See Ex. M, Dkt. 1 at ¶15.

[00107]. Plaintiff provides no argument of notice prior to September 16, 2020. See Ex. M,

Dkt. 1 at ¶30. Such notice came between a letter from Edge's counsel to Cartessa. See Ex. X,

Corresp. A. Razai to G. Lubin, Sept. 15, 2020. Plaintiff provided a corrected letter on November 17, 2020, to adequately provide notice shortly before filing suit on December 14, 2020.

[00108]. Because the Shadduck patents expired prior to notice, and because Plaintiff did not properly mark the Shadduck patents, Plaintiff can recover no damages for the Shadduck Patents.

[00109]. Because Plaintiff did not properly mark the '052 Patent, Plaintiff can recover no damages for the '052 Patent prior to notice.

## VIII. EDGE PROVIDES NO RELIABLE EVIDENCE OF DAMAGES

[00110]. David S. Hanson was asked by Edge to provide his opinion on "economic damages that may be owed by Cartessa with respect to the claim of patent infringement" and "to prepare an evaluation, critique, and rebuttal to any arguments, assumptions, opinions, and reports put forth by the Defendant or its expert." Ex. Z at 1.

[00111]. In support of their infringement claims, Edge provided Mr. Hanson's expert report (Exhibit Z) on February 17, 2022, and Mr. Hanson's reply report (Exhibit AA) on April 28, 2022 (collectively, the "Expert Report"). On May 23, 2022, Mr. Hanson was deposed by counsel for Cartessa. In his February 17, 2022 expert report, Mr. Hanson opined that Edge's "lost profit" damages totaled in the high millions of dollars, almost triple the *entire revenues* of Cartessa's from sales of Skinwave. Ex. Z at 8. Additionally, Mr. Hanson opined that Edge and Cartessa would have agreed to a royalty rate per device that greatly exceeds the average selling price of the Skinwave is \$13,293. *Id.* at 9, 12.

[00112]. Mr. Hanson's expert report is founded on insufficient data and improper testing methodologies.

- Mr. Hanson lacks credentials as an expert on lost profit damages.
- His opinions are unreliable because they lack factual support, are littered with assumptions for which he offers no analysis, and use unreliable methods.
- His reasonable royalty rate analysis (1) fails to apportion any value to the nonpatented aspects of the device, (2) includes an arbitrary 50/50 profit split of Edge's profits, (3) applies an arbitrary and baseless royalty rate per device that exceeds the

<sup>&</sup>lt;sup>1</sup> The transcript of Mr. Hanson's deposition is attached hereto as Exhibit AB.

<sup>&</sup>lt;sup>2</sup> These numbers are made generic for purposes of this publicly filed document.

<sup>&</sup>lt;sup>3</sup> These numbers are made generic for purposes of this publicly filed document.

average selling price of Cartessa's product, and (4) fails to separately value the individual patents, and fails to perform a proper economic analysis of the market, customer demand, and market approach of Cartessa and Edge.

- Mr. Hanson's lost profits analysis is fatally flawed because he (1) fails to establish demand for the patented product, (2) fails to adequately address non-infringing alternatives, and (3) makes assumptions regarding economic behavior of Cartessa's customers that are contrary to basic economic principles.
- [00113]. Mr. Hanson should not be permitted to testify regarding damages relating to infringement.
- [00114]. Of particular relevance to the present motion is what legally constitutes "sufficient facts or data" and what constitutes "reliable principles and methods" as required under the law.
- A. Mr. Hanson's Lack of Credentials as an Expert on Lost Profit Damages [00115]. Mr. Hanson is <u>not</u> an economist; rather he is a certified public accountant. During his deposition, Mr. Hanson acknowledged that he was not an economist, and in his Expert Report he recognized that the methods he was using were typically performed by economic experts. Ex. AB at 15:23-16:6; Ex. Z at 30. Courts are skeptical whether being a CPA alone makes one ever "qualified" to testify on the issue of lost profit forecasting has been debated by the courts. In *Space Maker Designs, Inc. v. Weldon F. Stump & Co.*, Nos. 3:02-CV-0378-H, and 3:02-2239-H, 2003 WL 21805274 (N.D. Tex. March 13, 2003), for example, the court struck a proposed expert who, as a CPA, had been proffered to opine on lost profits. In doing so, the court stated:

Lyon is *not qualified* to testify as to the effect of economic indicators on expected profits. His resume indicates that he is certified public accountant, licensed real estate broker, and possesses securities and insurance licenses. *None of these licenses make him qualified to opine on economic trends and their likely effects on* 

*profits*. Nor is there any other indicator in Lyon's resume that he is qualified to opine on economic issues.

Id. at \*3 (emphasis added); see also Allocco v. Allocco, 578 N.Y.S.2d 995, 1000 (Sup. Ct. Monroe

Cnty. 1991) (crediting testimony of forensic economist on future damages and rejecting that of accountant whose methodology, *inter alia*, ignored such concepts as enhanced earning capacity).

[00116]. While it is true that many courts have permitted CPAs to testify as experts on damages, they have only done so when the accountant's education and experience have otherwise qualified the expert to opine on such matters and also when the accountant has *applied professional accounting principles* to the calculation. For example, in *Beverly Hills Concepts, Inc. v. Schatz & Schatz, Ribicoff & Kotkin*, 717 A.2d 724 (Conn. 1998), the Connecticut Supreme Court held as follows:

The defendants argue that Ferreira was not qualified to make business projections because the plaintiff introduced no evidence that he was well versed in economic skills such as regression analysis. It is true that "[a]n accounting degree alone should not qualify a witness to testify that a given volume of sales, for example, will continue in the future." Nevertheless, we have affirmed the admission of testimony regarding lost profit damages by an accountant who had based his projections on the "standard valuation procedures recognized in the accounting profession." As noted above, Ferreira had prior experience in making business projections. We conclude that, in this regard, the trial court did not abuse its discretion in allowing him to testify.

*Id.* at 732-33 (emphasis added) (citations omitted).

[00117]. In contrast to the proffered expert in the *Beverly Hills Concept* case, Mr. Hanson's projections for damages are not based on accounting principles, and there is no evidence of him having any education or experience that would otherwise qualify him to opine on the issues at hand. Therefore, his testimony and the Expert Report should be excluded.

B. Mr. Hanson's Opinions are Unreliable Because They Lack Factual Support, are Littered with Baseless Assumptions, and Use Unreliable Methods Not Ordinarily Practiced in the Profession

[00118]. Under Daubert and Rule 702, "a district court may exclude evidence that is based upon unreliable principles or methods, legally insufficient facts and data, or where the reasoning or methodology is not sufficiently tied to the facts of the case." Summit 6 LLC v. Samsung Elecs. Co., 802 F.3d 1283, 1295. An expert opinion must be based on sufficient facts or data from a reliable source. Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., 711 F.3d 1348, 1373 (Fed. Cir. 2013). For example, an expert cannot propose a royalty rate without sufficient evidence tying it to the case's facts and considering the amount of profits due to non-infringing features of the accused product. See Apple Inc. v. Wi-LAN Inc., 25 F.4th 960, 972-73 (Fed. Cir. 2022) (excluding expert testimony that patents-in-suit were the "key" patents in portfolio licenses as unsupported by facts); MLC Intellectual Prop. v. Micron Tech., Inc., 10 F.4th 1358, 1368 (affirming exclusion of expert damages testimony that calculated a royalty rate from a prior lump sum patent license agreement without support from the agreement); Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prods. Grp., LLC, 879 F.3d 1332, 1349 (Fed. Cir. 2018) (excluding an expert's damages opinion because its treatment of the Georgia-Pacific factors "concluded with little explanation that [the parties] would have agreed to [the] reasonable royalty rate"); Speedfit LLC v. Woodway USA, Inc., No. 13-CV-1276 (KAM)(AKT), 2019 WL 1436306, at \*8 (E.D.N.Y. Mar. 29, 2019).

[00119]. Mr. Hanson's Expert Report explores damages from the standpoint of both lost profits and a reasonable royalty rate. In both scenarios, he relies on multiple unfounded assumptions and fails to adequately consider and analyze the facts of the case.

- C. Mr. Hanson's Proffered Testimony and Report Regarding a Reasonable Royalty Rate is not the Product of Reliable Data and Methodology and Therefore Should Be Excluded
- [00120]. Mr. Hanson grossly overstated a "reasonable" royalty rate due to use of unreliable methods and unsubstantiated assumptions. He fails to apportion value to the patented feature,

uses an arbitrary 50-50 profit split, fails to attribute value to different patents, and assumes all sales made by Cartessa for the Skinwave and related consumables would be captured by Edge. For the reasons set forth below, his opinion on a reasonable royalty should be excluded.

- 1. Mr. Hanson's Failure to Apportion Any Value to Other Aspects of the Device is Contrary to Undisputed Evidence
- [00121]. A reasonable royalty "must reflect the value attributable to the infringing features of the product, and no more." *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014). When the accused technology does not make up the whole of the accused product, apportionment is required.
- [00122]. When apportionment is required, the patent owner must "give evidence tending to separate or apportion the [infringer]'s profits and the patentee's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative." *Garretson v. Clark*, 111 U.S. 120, 121 (1884); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1310. "[I]f the smallest salable unit—or smallest identifiable technical component—contains non-infringing features, additional apportionment is still required." *Finjan*, 879 F.3d at 1311. Moreover, an expert must "provide the 'methodology' underlying his apportionment amount or explain how he arrived at that figure based on the facts of this case." *NetFuel, Inc. v. Cisco Sys. Inc.*, No. 5:18-CV-02352-EJD, 2020 WL 1274985, at \*9 (N.D. Cal. Mar. 17, 2020). If the expert fails to do so the expert's "apportionment opinion is not backed by 'sufficient facts or data' or by 'reliable principles and methods'" and should be excluded. *Id.* at \*7.
- [00123]. The "entire market value" rule is a narrow exception to apportionment that permits damages based on a product's total revenues or profits, but only if the patented feature drives the product's demand. *See LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51,

67 (Fed. Cir. 2012). To recover damages based on a product's total revenues or profits, "the entire value of the whole machine, as a marketable article, [must be] properly and legally attributable to the patented feature." *Garretson*, 111 U.S. at 121.

[00124]. Mr. Hanson invokes the "entire market value" rule without having any basis to do so, nor any analysis to support the use of the rule. Mr. Hanson merely assumes the patented feature drives the product's demand, and that the other non-patented features have no value. Cartessa's Skinwave device contains multiple features besides the accused functionality, such as a y-handle and LED wand. These features are important to consumer demand for providing antimicrobial and antibacterial therapy through the application of targeted LED light and through lymphatic drainage using the y-handle to massage the skin. As a result, to determine a reasonable royalty, Mr. Hanson was required to determine the value of the Skinwave features not covered by the patents and issue, not simply assume that they have no value, so that the royalty would only reflect the patented technology's value. Mr. Hanson did no such analysis. He fails to satisfy the apportionment requirement because he based the royalty base on the entire profits of the device, and all past and future consumables. Accordingly, Mr. Hanson's testimony on a proper royalty base should be excluded.

2. Mr. Hanson's Opinion Includes an Arbitrary 50/50 Profit Split of Edge's Profits

[00125]. Mr. Hanson's royalty calculations are fatally flawed because he incorrectly bases the royalty on Edge's profits alone, failing even to consider Cartessa's profits. He also simply assumes a royalty rate of 50% of Edge's profits. In addition, he improperly merely assumes that Edge and Cartessa have the same bargaining power.

[00126]. In calculating the royalty to which Edge and Cartessa hypothetically would have agreed, Mr. Hanson assumes "that Cartessa could have reasonable [*sic*] assumed profit

potential . . . comparable to the per unit achieved by Edge on the sales of its patented device."

Ex. Z at 42. However, Edge's profits are far greater than Cartessa's. He fails to explain why it is that if Cartessa could have made greater profits on the sale of Skinwave devices, it did not do so. In only considering Edge's profits in determining a reasonable royalty rate, Mr. Hanson fails to give any consideration to Cartessa's willingness-to-pay a royalty within the hypothetical negotiation framework given the level of profits it achieved. Mr. Hanson also fails to analyze any data on Cartessa's consumable sales, instead assuming Cartessa's profits would equal Edge's profits. However, the data shows that Cartessa's consumables sales and profits, like the profits on the Skinwave devices, are much lower than Edge's on a per device basis.

[00127]. Further, Mr. Hanson's royalty is based on an arbitrary 50 percent of Edge's total profits on its Tower Elite device and the consumables sold with the device throughout the useful life of the device. Courts have found that this methodology, known as the "Nash Bargaining solution," is grounds to exclude expert testimony if it is not shown to fit the facts of the cases. *See Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1331-32 (Fed. Cir. 2014) (compiling cases rejecting invocations of the Nash Bargaining solution and comparing cases where the Nash Bargaining Solution was shown to be tied to the facts of the case). In *Virnetx*, the Court of Appeals for the Federal Circuit held that anyone seeking to invoke the Nash Bargaining solution needs to establish that it fits the facts of the particular situation "because the 50/50 profit-split result is proven by the theorem only on those premises." *Id.* 1332.

[00128]. Mr. Hanson did not tie the use of the 50/50 split to the facts of this case. He provides no reasoning or analysis of the respective bargaining power between the parties, instead assuming equal bargaining power. In fact in his deposition, he testified that he "realize[d] it was difficult to decipher" what royalty rate the parties would negotiate, so, instead of attempting any

such determination, he "opted to have an even split of what [he] had presumed to be the equal profit of the two parties." Ex. AB at 139-140. He "ultimately concluded that, you know, a 50/50 split was fair." *Id.* at 226. His only support for this reasoning was that he thought it was a "conservative position." *Id.* at 140. "[M]erely labelling a value as 'conservative' is no substitute for a showing that there is an evidentiary foundation for the particular percentage selected—*i.e.*, for describing the methodology used to reach that number." *Guardant Health, Inc. v. Found. Med., Inc.*, Nos. 17-1616-LPS-CJB and 17-1623-LPS-CJB, 2020 WL 2461551, at \*18 (D. Del. May 7, 2020), *report and recommendation adopted*, No. 17-1616-LPS-CJB, 2020 WL 5994155 (D. Del. Oct. 9, 2020); *see also Koninklijke Philips Elecs. N.V. v. Zoll Lifecor Corp.*, No. 12-1369, 2017 WL 3140798, at \*4 (W.D. Pa. July 25, 2017) (holding expert would not be permitted to testify on 50% apportionment rate where he offered no objective support for the apportionment rate in his opinion or deposition); *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 69 (Fed. Cir. 2012) (one-third apportionment "appear[ed] to have been plucked out of this air based on vague qualitative notions).

3. Mr. Hanson's Opinion Regarding the Per-Device Reasonable Royalty Rate is Baseless and Arbitrary

[00129]. Mr. Hanson applies a royalty rate of over ten thousand dollars<sup>4</sup> per device, which exceeds the average selling price of Skinwave, which Mr. Hanson calculated was \$13,300. He offers no reasonable explanation for why Cartessa would have negotiated a royalty rate that would cause it to lose several thousand dollars<sup>5</sup> per device sold according to Mr. Hanson's gross profit margin calculations. Instead, he assumes that Cartessa would have simply raised its price for the Skinwave, but offers no explanation why if Cartessa could have sold the Skinwave for

<sup>&</sup>lt;sup>4</sup> These numbers are made generic for purposes of this publicly filed document.

<sup>&</sup>lt;sup>5</sup> These numbers are made generic for purposes of this publicly filed document.

substantially more it had not done so. Ex. Z at 42. Further, Mr. Hanson also considers "convoyed sales" of products sold in conjunction with the accused product that are not directly covered by the Patents-in-Suit in determining a royalty base. However, since the entire market rule does not apply, convoyed sales should not be included in the royalty base. *See Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1393 (Fed. Cir. 2003).

4. Mr. Hanson's Opinion Fails to Attribute Any Demand, Value, or Damages to the Individual Patents at Issue

[00130]. Mr. Hanson's report discusses all of the allegedly infringed patents as a group, instead of attributing any demand, value, or damages to the individual patents at issue. This is a fatal flaw because the patented technologies are not identical. The individual patents, which cover different technologies, should have different values and thus there should be different royalties for each patent. Analyzing the royalties that would have been negotiated for each patent is particularly important because Edge has dropped its allegations regarding infringement of the '646 patent. Further, in his deposition, Mr. Hanson implicitly recognized that the different patents at issue could have different values. Ex. AB at 158:12-159:2 (noting that the '052 Patent encompasses the same technology as the Shaddock Patents but "also adds the ability of the device to switch fluids back and forth through the handpiece."). Mr. Hanson's failure to analyze the respective values of the different patents, particularly where he implicitly acknowledges reasons they could have different values, is grounds to exclude his Expert Report. See Limelight Networks, Inc. v. XO Commc'ns, LLC, 2018 WL 678245 (E.D. Va. Feb. 2, 2018) (expert's methodology lacked reliability and could not be presented to the jury where expert did not perform any analysis of the different patented technology).

> 5. Mr. Hanson Fails to Perform a Proper Economic Analysis of the Market, Customer Demand, or Account for Differences Between Edge and Cartessa's Market Approach

- [00131]. As discussed in more depth below, Mr. Hanson's Expert Report fails to account for and analyze the differences in the market, customer demand, and approaches of Cartessa and Edge and analyze how this would have impacted royalty negotiations. Cartessa's product is far less expensive than Edge's and is often bundled with other products. Cartessa and Edge also have different core customers to whom they market and have different approaches to consumables.
  - D. Mr. Hanson's Proffered Testimony and Report Regarding Lost Profits is Vastly Inflated and Should Be Excluded
- [00132]. Mr. Hanson purports to calculate Edge's lost device profits that resulted from Cartessa's sale of the Skinwave device, and the supposed lost profits from diminished sales of "consumables" or convoyed sales of products that are sold for use with the device. These conveyed sales include solutions and replacement tips. Mr. Hanson purports to use the *Panduit* factors to calculate the lost profits. Ex. Z at 7-8; *see also Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978). However, he fails to apply three of the four factors.
  - 1. Mr. Hanson's Lost Profits Analysis Fails to Establish Demand for the Patented Product
- [00133]. Mr. Hanson fails to establish demand for the patented product for several reasons. The Skinwave contains multiple features that are not patent-infringing. The Skinwave has three handpieces that are used equally according to Cartessa's treatment protocols, but only one of the three handpieces is allegedly infringing. Where there is evidence that something other than the patented feature drives consumer demand for the infringing product, the patentee must show demand for the patented feature in particular. *See Calico Brand, Inc. v. Ameritek Imports, Inc.*, 527 F. App'x 987, 966 (Fed. Cir.), *decision clarified on reh'g*, 547 F. App'x 966 (Fed. Cir. 2013) (finding demand was not met where there was evidence that the only distinguishing feature causing customers to purchase the infringing product over the patented product was the

difference in price). Mr. Hanson does not analyze value tied to the specific patented features, instead assuming that all other non-infringing features have no value.

[00134]. Mr. Hanson also fails to explain how the demand for Cartessa's product would be transferred to Edge's product absent Cartessa's alleged infringement. He ignores the demand/supply curve: as the price for a product increases, the demand for that product decreases. Ex. Z at 24-30. Mr. Hanson has concluded that Edge's Tower Elite costs significantly more than the Skinwave. *Id.* at 42. Therefore, the supply/demand curve dictates that not all Cartessa customers would be willing to pay for the more expensive Tower Elite. Additionally, the Skinwave is often sold within a bundle with other products and sold at a discount. Edge, however, does not sell the expensive lasers and other cosmetic devices that Cartessa sells and so cannot bundle sales the way Cartessa does. Ex. AB at 45:14-19. Further, Cartessa's expert, Dr. Christine S. Meyer, calculated that 19.7% of Skinwave devices are given away free of charge. Mr. Hanson fails to explain the basis for his assumption that Skinwave customers who bought their device at a significant discount because they were buying another more expensive device or received the Skinwave for free, would have purchased an expensive Edge device.

[00135]. Further, the majority of Cartessa's customers are dermatologists and plastic surgeons, whereas the HydraFacial is mostly focused on the day-spa and med-spa customers. Mr. Hanson fails to analyze or even acknowledge the differing markets to which Edge and Cartessa sell their products, much less determine whether the demand for HydraFacial cleansing devices within these different categories of customers is the same. For the foregoing reasons, there is no evidence that Cartessa's customers would transfer their demand to Edge's product. See e.g. BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc., 1 F.3d 1214, 1219 (Fed. Cir. 1993) ("If the products are not sufficiently similar to compete in the same market for the same

customers, the infringer's customers would not necessarily transfer their demand to the patent owner's product in the absence of the infringer's product. In such circumstances . . . the first *Panduit* factor does not operate to satisfy the elemental 'but for' test.") (reversing the award of lost profits).

2. Mr. Hanson's Lost Profits Analysis Fails to Consider Non-Infringing Alternatives

[00136]. Mr. Hanson ignores that there are non-infringing alternatives available to both the Shadduck Patents and the '052 Patent, making lost profits unavailable. With respect to the Shadduck Patents, Cartessa's technical expert, Dr. Morten Jensen, opined that there are at least two ways to design around the alleged claims. The first option is to further reduce the sharpness of the tip of the Skinwave, and the second option is to either increase the recess or extend the outer perimeter of the handpiece so that the inner part of the tip does not contact the skin at all. Both of these redesigns could be done in one month and would not add cost to production beyond a new injection mold which would cost approximately \$10,000 to \$20,000. Further, Edge has failed to show that the scraping and abrasion caused by the tip configuration covered by the Shadduck Patents provide any mechanical benefits and there is no evidence they drive utility or consumer demand.

[00137]. With respect to the '052 Patent, Dr. Jensen opined that adding more physical space between the solution bottles and manifold would be an acceptable non-infringing alternative. This redesign process would take less than six months and would cost approximately \$100,000 to \$300,000. The redesign would extend treatment time by only an immaterial few seconds per session. Despite these promising non-infringing alternatives, Mr. Hanson concludes, based solely on the opinions of others, that there are no non-infringing alternatives. Ex. Z at 17-22; Ex. AA at 4-5. Mr. Hanson wholly deferred to the opinions of technical experts hired by

Edge, making clear that he did no independent analysis and had no independent opinion. Ex. AB at 217:17-218:13. The opinions Mr. Hanson relied on found that reducing the sharpness of the tip and instead using a spherical shape was still in fact "sharp" and infringing. Such as conclusion has no basis in fact and is apparent to even a non-technical reviewer, and Mr. Hanson's reliance on them makes his opinion unreliable. *See Longhorn HD LLC. v. NetScout Sys., Inc.*, 2022 WL 991696, at \*4 (E.D. Tex. Mar. 31, 2022) (excluding expert opinion predicated on an unreliable non-infringing alternative opinion).

3. Mr. Hanson's Lost Profits Analysis Grossly Overstates the Amount of Lost Profits

[00138]. In his report, Mr. Hanson makes numerous assumptions that are contrary to the facts and basic economic principles that result in vastly inflating Edge's alleged lost profits. Mr. Hanson's lost profit analysis should be excluded because it is based on unsubstantiated assumptions, lacks sufficient factual support, includes illogical conclusions, and thus will only serve to confuse the jury.

[00139]. Mr. Hanson inappropriately assumes Cartessa could charge the same amount that Edge charged per device and still sell the same number of devices. Over 90 percent of Cartessa's Skinwave devices were sold or given away below the average selling price of Edge's Tower Elite. On average Edge's Tower Elite costs 73 percent more than Cartessa's Skinwave. Mr. Hanson offers no evidence to support his conclusion that all of Cartessa's customers would have paid a much higher price in order to own a HydraFacial cleansing device. That assumption runs contrary to basic principles of supply and demand. Indeed, as noted, if Cartessa were able to charge a higher price, business logic would presume that Cartessa would have. Additionally, 19 percent of Skinwave devices were given away for free. Mr. Hanson assumes that all of the

Cartessa customers that received free devices would buy one of Edge's devices, but there is no basis for that assumption, nor any analysis to suggest any basis.

Mr. Hanson also improperly inflates damages by making baseless assumptions [00140]. about convoyed sales of consumables. In order to be entitled to lost profits on convoyed sales, the related products must be "functionally related to the patented product and losses must be reasonably foreseeable." Warsaw Orthopedic, Inc. v. NuVasive, Inc., 778 F. 3d 1365, 1375 (Fed. Cir. 2015), cert. granted and judgment vacated, remanded to Federal Circuit Court sub nom, Medtronic Sofamor Danek USA, Inc. v. NuVasive, Inc., 577 U.S. 1099 (2016). "If the convoyed sale has a use independent of the patented device, that suggests a non-functional relationship." *Id.* Mr. Hanson calculated lost profits on consumable sales based on the premise that customers who purchased the Skinwave product from Cartessa (or received a unit for free) would purchase consumables at the same rate that Edge consumables had historically been purchased. Mr. Hanson does not distinguish between the different types of consumables (e.g. tips, solutions, starter packs, etc.), and instead groups them all together without any analysis on the functional relationship between the device to each type of consumable. Mr. Hanson therefore fails to demonstrate that each type of consumable is functionally related to the device and is entitled to be included in lost profits calculations. To the extent only some consumables are functionally related to the device, Mr. Hanson has inflated his damages and his calculations are unreliable. [00141]. Further, Mr. Hanson assumes without basis that the Skinwave customers would purchase consumables at the same rate and for the same amount as Edge's Tower Elite customers. However, the majority of Skinwave devices are sold within a bundle and at a discount. Skinwave's consumables sales are not a major piece of Cartessa's business. Therefore, there is no basis for Mr. Hanson's assumption that Skinwave customers would behave the same as Edge customers with respect to consumables, because historically they have not.

Mr. Hanson projects that these consumable sales will continue for 10 years per device. Ex. Z at

29. In total, Mr. Hanson estimates lost profits in the high millions of dollars, and majority of that amount attributable to consumables. 6 *Id.* Over half of Mr. Hanson's total lost profits relate to consumables. Mr. Hanson's analysis of lost profits ignores crucial facts and should be excluded.

E. Mr. Hanson's Proffered Report and Testimony Do Not Assist the Trier of Fact and Therefore Should Be Excluded

[00142]. Mr. Hanson's Expert Report is riddled with groundless assumptions, skewed data, and illogical conclusions. As such it would not assist the trier of fact. Mr. Hanson's methods do not properly account for relevant facts in this case, such as particulars of the patents, devices, and markets at issue. *See Eloqui Voice Sys., LLC v. Nuance Commc'ns., Inc.*, No. ED CV 17-00890 JAK(SHSx), 2020 WL 10730047, at \*2 (C.D. Cal. Apr. 7, 2020) (*citing* Fed. R. Evid. 702 Advisory Committee's Note (2000 Amendment)) (courts must "scrutinize not only the principles and methods used by the expert, but also whether those principles and methods have been properly applied to the facts of the case"). Mr. Hanson cannot meet Rule 702's "helpfulness" standard and his testimony and Expert Report thus should be excluded.

<sup>&</sup>lt;sup>6</sup> These numbers are made generic for purposes of this publicly filed document.

<sup>&</sup>lt;sup>7</sup> These numbers are made generic for purposes of this publicly filed document.